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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,737	03/19/2002	Toshiyuki Ito	217211USOPCT	2056
22850	7590	02/24/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			BLACKWELL RUDASIL, GWENDOLYN A	
			ART UNIT	PAPER NUMBER
			1775	

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/926,737	ITO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Gwendolyn A. Blackwell-Rudasill	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 November 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11-13 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "the low thermal conductivity member" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the method of claim 8" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation "the temperature of the prism surface side and Fresnel lens side" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "the polyimide film" in line 1. There is insufficient antecedent basis for this limitation in the claim.

3. To further prosecution, the abovementioned limitations in claims 11-13 and 15 have been examined with the claim as if the limitations are properly part of the claim.

### *Claim Objections*

4. Claim 19 is objected to because of the following informalities:

Line 3 contains the limitation "4,000 cm<sup>2</sup> or greater", however the physical property that the limitation pertains to is not listed. Should the abovementioned dimension be to the area of

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the optical sheet? Appropriate correction is required. To further prosecution of the application, the abovementioned limitation has been taken to mean the area of the optical sheet.

***Claim Rejections - 35 USC 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless –*

*(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

6. Claims 1 and 4-18 are rejected under 35 U.S.C. 102(b) as being anticipated by United States Patent no. 6,171,527, Warino et al with Applicant's disclosure used as an evidentiary reference.

*Regarding claims 1, 8-15, and 17*

Applicant has implicitly admitted that the process of Warino et al is used to produce an injection molded resin sheet having a surface stress of 200 kg/cm<sup>2</sup> or less, (see page 6, lines 103 of the present specification; Warino et al is the English language equivalent of JP 11-129305). Warino et al also disclose "when the lens sheet to be produced has front and back uneven surfaces, the molds of the structure shown in Fig. 1 may be mounted on both surfaces of the cavity, (column 8, lines 3-9). Example 2, (Table 1), and Example 11, (Table 3), demonstrate a prism and Fresnel lens pattern respectively, wherein the Fresnel lens patterns has a height from 20-80  $\mu$ m and the prism and Fresnel lens pattern can be formed at the same cylinder temperature of 270°C and mold temperature of 76°C. Furthermore, the mold comprises a thin plate member having a thickness ranging from 0.3-0.6 mm and a low thermal conductivity member having a thickness ranging from 0.05-0.3 mm, (column 4, lines 7-44). The thin plate member can be

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nickel and the thermal conductivity member can be a polyimide film, (column 9, lines 24-60).

The thickness of the molded article can be 3 mm, (column 5, lines 65-67).

Warino et al do not specifically state the surface stress; however, since the process parameters are substantially the same, it is the position of the examiner that the claimed surface stress would be present in the prior art. As such, no patentable distinction is seen.

*Regarding claims 4-7, 16, and 18:*

Claims 4-7, 16, and 18 contain only process limitations with no structural limitations. In the absence of an indication of differences in the structure itself, no patentable distinction is seen.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 3 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent no. 6,171,527, Warino et al.

Warino et al disclose the limitations of claim 1 above. Although Warino et al do not specifically disclose the area of the optical sheet as exemplified by Applicant, absent a showing of criticality with respect to the area (a result effective variable), it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the area through routine experimentation in order to achieve an optical sheet that has the required area for the desired end use, such as for a screen of a projection TV or a projector, (Warino et al, column 1, lines 11-19). It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

### ***Response to Arguments***

10. Applicant's arguments filed November 7, 2003 have been fully considered but they are not persuasive with respect to United States Patent no. 6,171,527, Warino et al.

Applicant contends that Warino et al do not teach or disclose the difference in stresses between the prism surface and the Fresnel lens side of an optical sheet as exemplified by Applicant. Applicant also contends that the stress is not inherently present due to the fact that the surface structure and the surface temperatures of the molding apparatus would yield optical sheets of poor deformation characteristics as taught by Warino et al.

Applicant has implicitly admitted that the process of Warino et al is used to produce an injection molded resin sheet having a surface stress of 200 kg/cm<sup>2</sup> or less, (see page 6, lines 103 of the present specification; Warino et al is the English language equivalent of JP 11-129305). Warino et al also disclose a lens sheet that has front and back uneven surfaces, (column 8, lines 3-9), as well as examples demonstrating the limitations of the prism and Fresnel lens as presently

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claimed by Applicant. The features of the thin plate member and the low thermal conductivity member, as claimed by Applicant, are also taught by Warino et al.

While Applicant has demonstrated why one would not want to have the differences of the surfaces stresses of the optical sheet to be greater than 20%, Applicant has not provided anything to substantiate the argument that Warino et al does not teach an optical sheet having the limitations as presently claimed by Applicant, especially in light of Warino et al and Applicant's disclosure set forth above. Because Applicant has not provided a factual basis demonstrating that the optical sheet as presently claimed could not be made according to the teachings of Warino et al, the rejection of present claims 1 and 3 are maintained, with new claims 4-19 being incorporated into the rejection.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn A. Blackwell-Rudasill whose telephone number is (571) 272-1533. The examiner can normally be reached on Monday - Thursday; 6:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
gbr

Gwendolyn A. Blackwell-Rudasill  
Examiner  
Art Unit 1775

  
DEBORAH JONES  
SUPERVISOR